RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/719,587A
Source: IFW16
Date Processed by STIC: 08/17/2006

ENTERED

IFW16

RAW SEQUENCE LISTING DATE: 08/17/2006
PATENT APPLICATION: **US/10/719,587A** TIME: 11:06:15

Input Set : **A:\55862-CIP(46342)-Amended.txt**
Output Set: **N:\CRF4\08172006\J719587A.raw**

```
     3 <110> APPLICANT: Takeda Chemical Industries, Ltd.
     5 <120> TITLE OF INVENTION: Novel G protein-coupled receptor protein, its DNA and ligand
thereof
     7 <130> FILE REFERENCE: 2568US0P-CIP
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/719,587A
C--> 9 <141> CURRENT FILING DATE: 2003-11-21
     9 <150> PRIOR APPLICATION NUMBER: US 09/831,758
    10 <151> PRIOR FILING DATE: 2001-05-11
    12 <150> PRIOR APPLICATION NUMBER: PCT/JP99/06283
    13 <151> PRIOR FILING DATE: 1999-11-11
    15 <150> PRIOR APPLICATION NUMBER: JP 10-323759
    16 <151> PRIOR FILING DATE: 1998-11-13
    18 <150> PRIOR APPLICATION NUMBER: JP 11-060030
    19 <151> PRIOR FILING DATE: 1999-03-08
    21 <150> PRIOR APPLICATION NUMBER: JP 11-106812
    22 <151> PRIOR FILING DATE: 1999-04-14
    24 <150> PRIOR APPLICATION NUMBER: JP 11-166672
    25 <151> PRIOR FILING DATE: 1999-06-14
    27 <150> PRIOR APPLICATION NUMBER: JP 11-221640
    28 <151> PRIOR FILING DATE: 1999-08-04
    30 <150> PRIOR APPLICATION NUMBER: JP 11-259818
    31 <151> PRIOR FILING DATE: 1999-09-14
    33 <160> NUMBER OF SEQ ID NOS: 66
    35 <210> SEQ ID NO: 1
    36 <211> LENGTH: 180
    37 <212> TYPE: PRT
    38 <213> ORGANISM: Human
    40 <400> SEQUENCE: 1
    41 Met Glu Ile Ile Ser Ser Lys Leu Phe Ile Leu Leu Thr Leu Ala Thr
    42  1               5                  10                  15
    43 Ser Ser Leu Leu Thr Ser Asn Ile Phe Cys Ala Asp Glu Leu Val Met
    44             20                  25                  30
    45 Ser Asn Leu His Ser Lys Glu Asn Tyr Asp Lys Tyr Ser Glu Pro Arg
    46         35                  40                  45
    47 Gly Tyr Pro Lys Gly Glu Arg Ser Leu Asn Phe Glu Glu Leu Lys Asp
    48     50                  55                  60
    49 Trp Gly Pro Lys Asn Val Ile Lys Met Ser Thr Pro Ala Val Asn Lys
    50 65                  70                  75                  80
    51 Met Pro His Ser Phe Ala Asn Leu Pro Leu Arg Phe Gly Arg Asn Val
    52                 85                  90                  95
    53 Gln Glu Glu Arg Ser Ala Gly Ala Thr Ala Asn Leu Pro Leu Arg Ser
    54             100                 105                 110
    55 Gly Arg Asn Met Glu Val Ser Leu Val Arg Arg Val Pro Asn Leu Pro
    56         115                 120                 125
```

CP9-6)

RAW SEQUENCE LISTING DATE: 08/17/2006
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Input Set : A:\55862-CIP(46342)-Amended.txt
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Gln Arg Phe Gly Arg Thr Thr Thr Ala Lys Ser Val Cys Arg Met Leu
130 135 140
Ser Asp Leu Cys Gln Gly Ser Met His Ser Pro Cys Ala Asn Asp Leu
145 150 155 160
Phe Tyr Ser Met Thr Cys Gln His Gln Glu Ile Gln Asn Pro Asp Gln
165 170 175
Lys Gln Ser Arg
180

<210> SEQ ID NO: 2
<211> LENGTH: 540
<212> TYPE: DNA
<213> ORGANISM: Human
<400> SEQUENCE: 2
atggaaatta tttcatcaaa actattcatt ttattgactt tagccacttc aagcttgtta 60
acatcaaaca ttttttgtgc agatgaatta gtgatgtcca atcttcacag caaagaaaat 120
tatgacaaat attctgagcc tagaggatac ccaaaagggg aaagaagcct caattttgag 180
gaattaaaag attggggacc aaaaaatgtt attaagatga gtacacctgc agtcaataaa 240
atgccacact ccttcgccaa cttgccattg agatttggga ggaacgttca agaagaaaga 300
agtgctggag caacagccaa cctgcctctg agatctgga agaaatatgga ggtgagcctc 360
gtgagacgtg ttcctaacct gccccaaagg tttgggagaa caacaacagc caaaagtgtc 420
tgcaggatgc tgagtgattt gtgtcaagga tccatgcatt caccatgtgc caatgactta 480
ttttactcca tgacctgcca gcaccaagaa atccagaatc ccgatcaaaa acagtcaagg 540

<210> SEQ ID NO: 3
<211> LENGTH: 27
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: primer
<400> SEQUENCE: 3
gggctgcaca tagagactta attttag 27

<210> SEQ ID NO: 4
<211> LENGTH: 27
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: primer
<400> SEQUENCE: 4
ctagaccacc tctatataac tgcccat 27

<210> SEQ ID NO: 5
<211> LENGTH: 30
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: primer
<400> SEQUENCE: 5
gcacatagag acttaatttt agatttagac 30

<210> SEQ ID NO: 6
<211> LENGTH: 27
<212> TYPE: DNA

RAW SEQUENCE LISTING DATE: 08/17/2006
PATENT APPLICATION: **US/10/719,587A** TIME: 11:06:15

Input Set : **A:\55862-CIP(46342)-Amended.txt**
Output Set: **N:\CRF4\08172006\J719587A.raw**

<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: primer
<400> SEQUENCE: 6
catgcacttt gactggtttc caggtat 27
<210> SEQ ID NO: 7
<211> LENGTH: 27
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: primer
<400> SEQUENCE: 7
cagctttagg gacaggctcc aggtttc 27
<210> SEQ ID NO: 8
<211> LENGTH: 196
<212> TYPE: PRT
<213> ORGANISM: Human
<400> SEQUENCE: 8

```
Met Glu Ile Ile Ser Ser Lys Leu Phe Ile Leu Leu Thr Leu Ala Thr
 1               5                  10                  15
Ser Ser Leu Leu Thr Ser Asn Ile Phe Cys Ala Asp Glu Leu Val Met
            20                  25                  30
Ser Asn Leu His Ser Lys Glu Asn Tyr Asp Lys Tyr Ser Glu Pro Arg
        35                  40                  45
Gly Tyr Pro Lys Gly Glu Arg Ser Leu Asn Phe Glu Glu Leu Lys Asp
    50                  55                  60
Trp Gly Pro Lys Asn Val Ile Lys Met Ser Thr Pro Ala Val Asn Lys
65                  70                  75                  80
Met Pro His Ser Phe Ala Asn Leu Pro Leu Arg Phe Gly Arg Asn Val
                85                  90                  95
Gln Glu Glu Arg Ser Ala Gly Ala Thr Ala Asn Leu Pro Leu Arg Ser
            100                 105                 110
Gly Arg Asn Met Glu Val Ser Leu Val Arg Arg Val Pro Asn Leu Pro
        115                 120                 125
Gln Arg Phe Gly Arg Thr Thr Thr Ala Lys Ser Val Cys Arg Met Leu
    130                 135                 140
Ser Asp Leu Cys Gln Gly Ser Met His Ser Pro Cys Ala Asn Asp Leu
145                 150                 155                 160
Phe Tyr Ser Met Thr Cys Gln His Gln Glu Ile Gln Asn Pro Asp Gln
                165                 170                 175
Lys Gln Ser Arg Arg Leu Leu Phe Lys Lys Ile Asp Asp Ala Glu Leu
            180                 185                 190
Lys Gln Glu Lys
        195
```

<210> SEQ ID NO: 9
<211> LENGTH: 588
<212> TYPE: DNA
<213> ORGANISM: Human
<400> SEQUENCE: 9

RAW SEQUENCE LISTING DATE: 08/17/2006
PATENT APPLICATION: **US/10/719,587A** TIME: 11:06:15

Input Set : **A:\55862-CIP(46342)-Amended.txt**
Output Set: **N:\CRF4\08172006\J719587A.raw**

```
176 atggaaatta tttcatcaaa actattcatt ttattgactt tagccacttc aagcttgtta   60
177 acatcaaaca ttttttgtgc agatgaatta gtgatgtcca atcttcacag caaagaaaat  120
178 tatgacaaat attctgagcc tagaggatac ccaaaagggg aaagaagcct caattttgag  180
179 gaattaaaag attggggacc aaaaaatgtt attaagatga gtacacctgc agtcaataaa  240
180 atgccacact ccttcgccaa cttgccattg agatttggga ggaacgttca agaagaaaga  300
181 agtgctggag caacagccaa cctgcctctg agatctggaa gaaatatgga ggtgagcctc  360
182 gtgagacgtg ttcctaacct gccccaaagg tttgggagaa caacaacagc caaaagtgtc  420
183 tgcaggatgc tgagtgattt gtgtcaagga tccatgcatt caccatgtgc caatgactta  480
184 ttttactcca tgacctgcca gcaccaagaa atccagaatc ccgatcaaaa acagtcaagg  540
185 agactgctat tcaagaaaat agatgatgca gaattgaaac aagaaaaa               588
187 <210> SEQ ID NO: 10
188 <211> LENGTH: 27
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: primer
195 <400> SEQUENCE: 10
196 gcctagagga gatctaggct gggagga                                      27
198 <210> SEQ ID NO: 11
199 <211> LENGTH: 27
200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: primer
206 <400> SEQUENCE: 11
207 gggaggaaca tggaagaaga aaggagc                                      27
209 <210> SEQ ID NO: 12
210 <211> LENGTH: 27
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: primer
217 <400> SEQUENCE: 12
218 gatggtgaat gcatggactg ctggagc                                      27
220 <210> SEQ ID NO: 13
221 <211> LENGTH: 27
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: primer
228 <400> SEQUENCE: 13
229 ttcctcccaa atctcagtgg caggttg                                      27
231 <210> SEQ ID NO: 14
232 <211> LENGTH: 196
233 <212> TYPE: PRT
234 <213> ORGANISM: Bovine
236 <400> SEQUENCE: 14
237 Met Glu Ile Ile Ser Leu Lys Arg Phe Ile Leu Leu Met Leu Ala Thr
238  1               5                  10                  15
```

RAW SEQUENCE LISTING DATE: 08/17/2006
PATENT APPLICATION: **US/10/719,587A** TIME: 11:06:15

Input Set : **A:\55862-CIP(46342)-Amended.txt**
Output Set: **N:\CRF4\08172006\J719587A.raw**

```
239 Ser Ser Leu Leu Thr Ser Asn Ile Phe Cys Thr Asp Glu Ser Arg Met
240             20                  25                  30
241 Pro Asn Leu Tyr Ser Lys Lys Asn Tyr Asp Lys Tyr Ser Glu Pro Arg
242         35                  40                  45
243 Gly Asp Leu Gly Trp Glu Lys Glu Arg Ser Leu Thr Phe Glu Glu Val
244     50                  55                  60
245 Lys Asp Trp Ala Pro Lys Ile Lys Met Asn Lys Pro Val Val Asn Lys
246 65                  70                  75                  80
247 Met Pro Pro Ser Ala Ala Asn Leu Pro Leu Arg Phe Gly Arg Asn Met
248                 85                  90                  95
249 Glu Glu Glu Arg Ser Thr Arg Ala Met Ala His Leu Pro Leu Arg Leu
250             100                 105                 110
251 Gly Lys Asn Arg Glu Asp Ser Leu Ser Arg Trp Val Pro Asn Leu Pro
252         115                 120                 125
253 Gln Arg Phe Gly Arg Thr Thr Thr Ala Lys Ser Ile Thr Lys Thr Leu
254     130                 135                 140
255 Ser Asn Leu Leu Gln Gln Ser Met His Ser Pro Ser Thr Asn Gly Leu
256 145                 150                 155                 160
257 Leu Tyr Ser Met Ala Cys Gln Pro Gln Glu Ile Gln Asn Pro Gly Gln
258                 165                 170                 175
259 Lys Asn Leu Arg Arg Arg Gly Phe Gln Lys Ile Asp Asp Ala Glu Leu
260             180                 185                 190
261 Lys Gln Glu Lys
262         195
264 <210> SEQ ID NO: 15
265 <211> LENGTH: 588
266 <212> TYPE: DNA
267 <213> ORGANISM: Bovine
269 <400> SEQUENCE: 15
270 atggaaatta tttcattaaa acgattcatt ttattgatgt tagccacttc aagcttgtta   60
271 acatcaaaca tcttctgcac agacgaatca aggatgccca atctttacag caaaaagaat  120
272 tatgacaaat attccgagcc tagaggagat ctaggctggg agaaagaaag aagtcttact  180
273 tttgaagaag taaaagattg ggctccaaaa attaagatga ataaacctgt agtcaacaaa  240
274 atgccacctt ctgcagccaa cctgccactg agatttggga ggaacatgga agaagaaagg  300
275 agcactaggg cgatggccca cctgcctctg agactcggaa aaaatagaga ggacagcctc  360
276 tccagatggg tcccaaatct gccccagagg tttggaagaa caacaacagc caaaagcatt  420
277 accaagaccc tgagtaattt gctccagcag tccatgcatt caccatctac caatgggcta  480
278 ctctactcca tggcctgcca gccccaagaa atccagaatc ctggtcaaaa gaacctaagg  540
279 agacggggat tccagaaaat agatgatgca gaattgaaac aagaaaaa               588
281 <210> SEQ ID NO: 16
282 <211> LENGTH: 27
283 <212> TYPE: DNA
284 <213> ORGANISM: Artificial Sequence
286 <220> FEATURE:
287 <223> OTHER INFORMATION: primer
289 <400> SEQUENCE: 16
290 ccctggggct tcttctgtct tctatgt                                      27
292 <210> SEQ ID NO: 17
293 <211> LENGTH: 26
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/17/2006
PATENT APPLICATION: **US/10/719,587A** TIME: 11:06:16

Input Set : **A:\55862-CIP(46342)-Amended.txt**
Output Set: **N:\CRF4\08172006\J719587A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:20; N Pos. 3,9
Seq#:21; N Pos. 3,9,12
Seq#:22; N Pos. 3,6,9
Seq#:23; N Pos. 3,6,9,12
Seq#:24; N Pos. 3,6,9
Seq#:25; N Pos. 3,6,9,12
Seq#:63; Xaa Pos. 10

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:64,65,66

VERIFICATION SUMMARY DATE: 08/17/2006
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Input Set : **A:\55862-CIP(46342)-Amended.txt**
Output Set: **N:\CRF4\08172006\J719587A.raw**

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:1145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0